Fig. 1

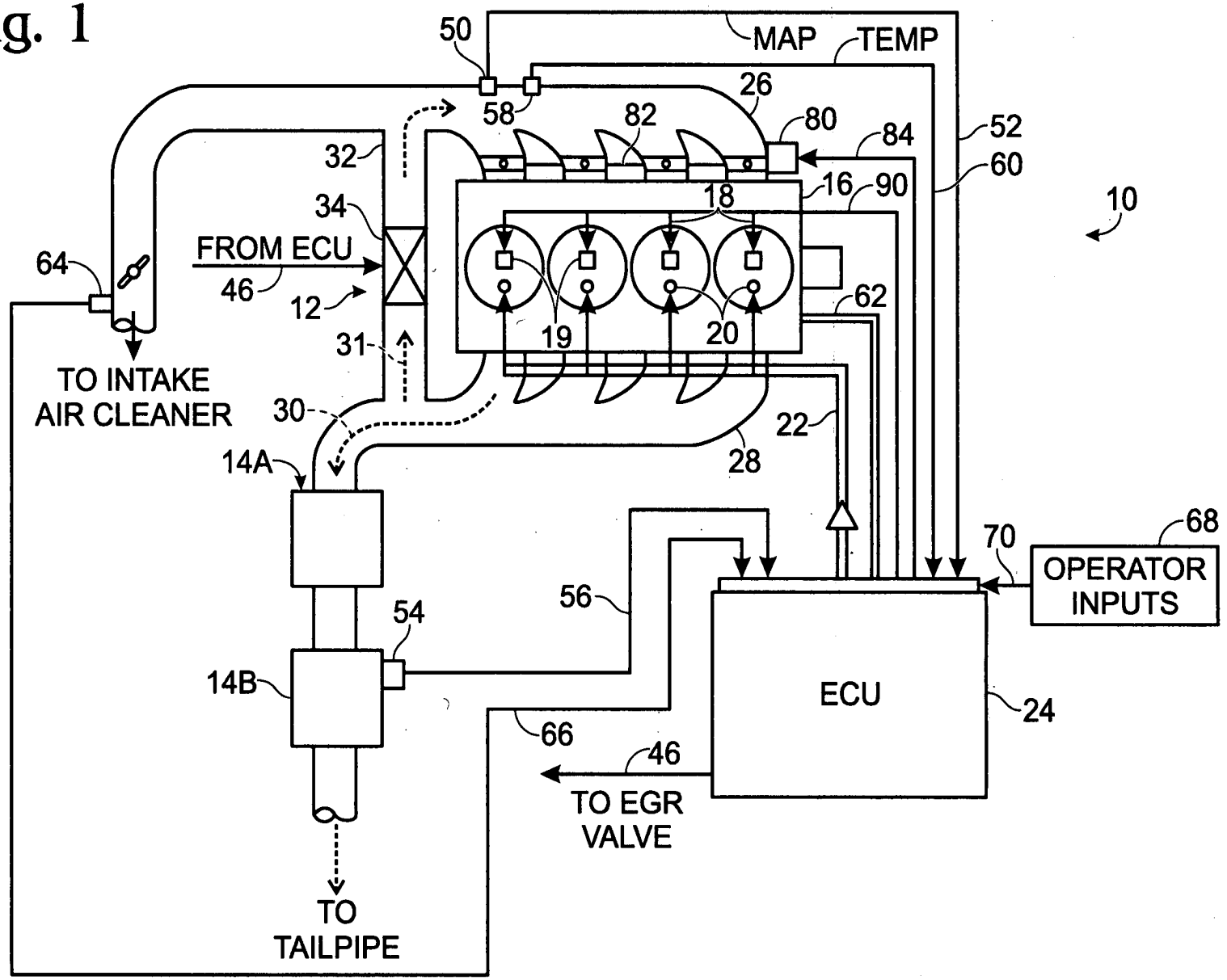

50
MAP
TEMP
26
58
82
80
84
52
60
32
18
16
90
10
34
FROM ECU
46
12
64
62
19
20
31
TO INTAKE
AIR CLEANER
30
22
28
14A
68
70
OPERATOR
INPUTS
56
54
14B
ECU
24
66
46
TO EGR
VALVE
TO
TAILPIPE

Fig. 2

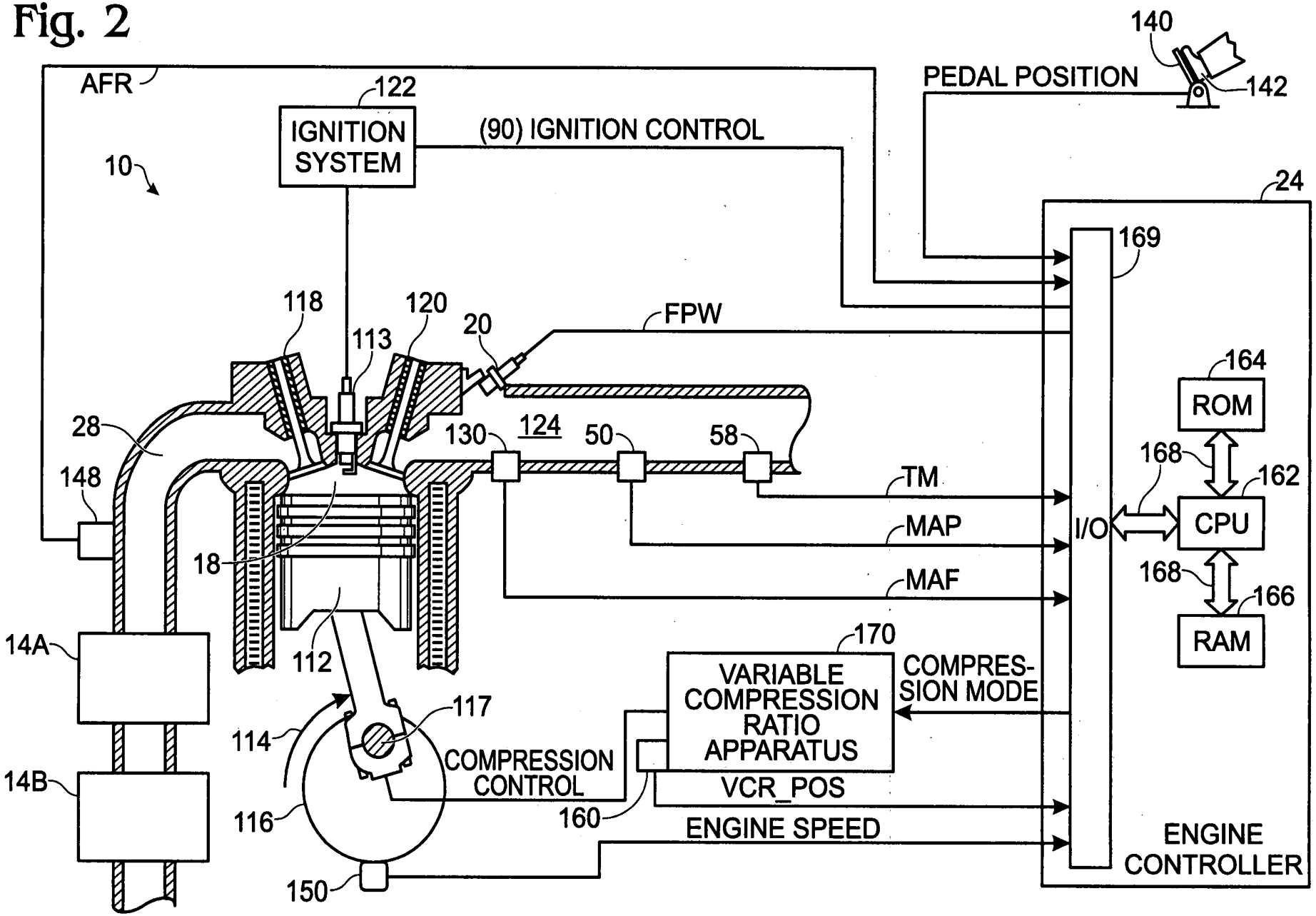

AFR
122
IGNITION SYSTEM
(90) IGNITION CONTROL
PEDAL POSITION
140
142
10
24
169
118
120
113
20
FPW
164
ROM
28
130
124
50
58
168
162
148
TM
MAP
I/O
CPU
18
MAF
168
166
RAM
14A
112
170
VARIABLE COMPRESSION RATIO APPARATUS
COMPRES-SION MODE
117
114
COMPRESSION CONTROL
14B
VCR_POS
116
160
ENGINE SPEED
ENGINE CONTROLLER
150

Fig. 3

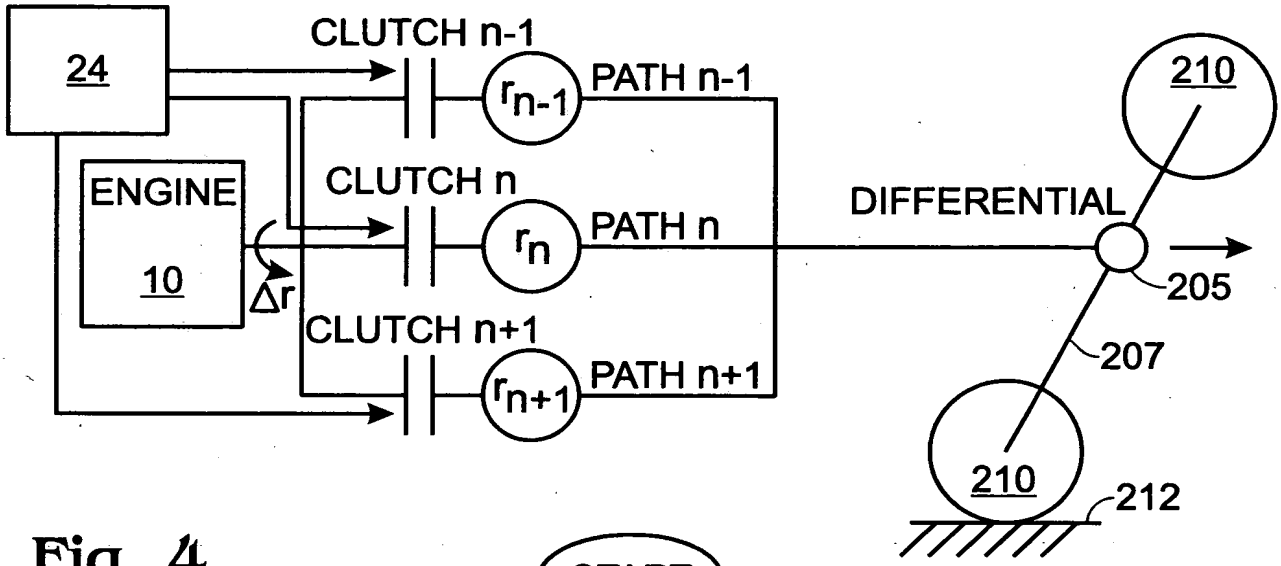
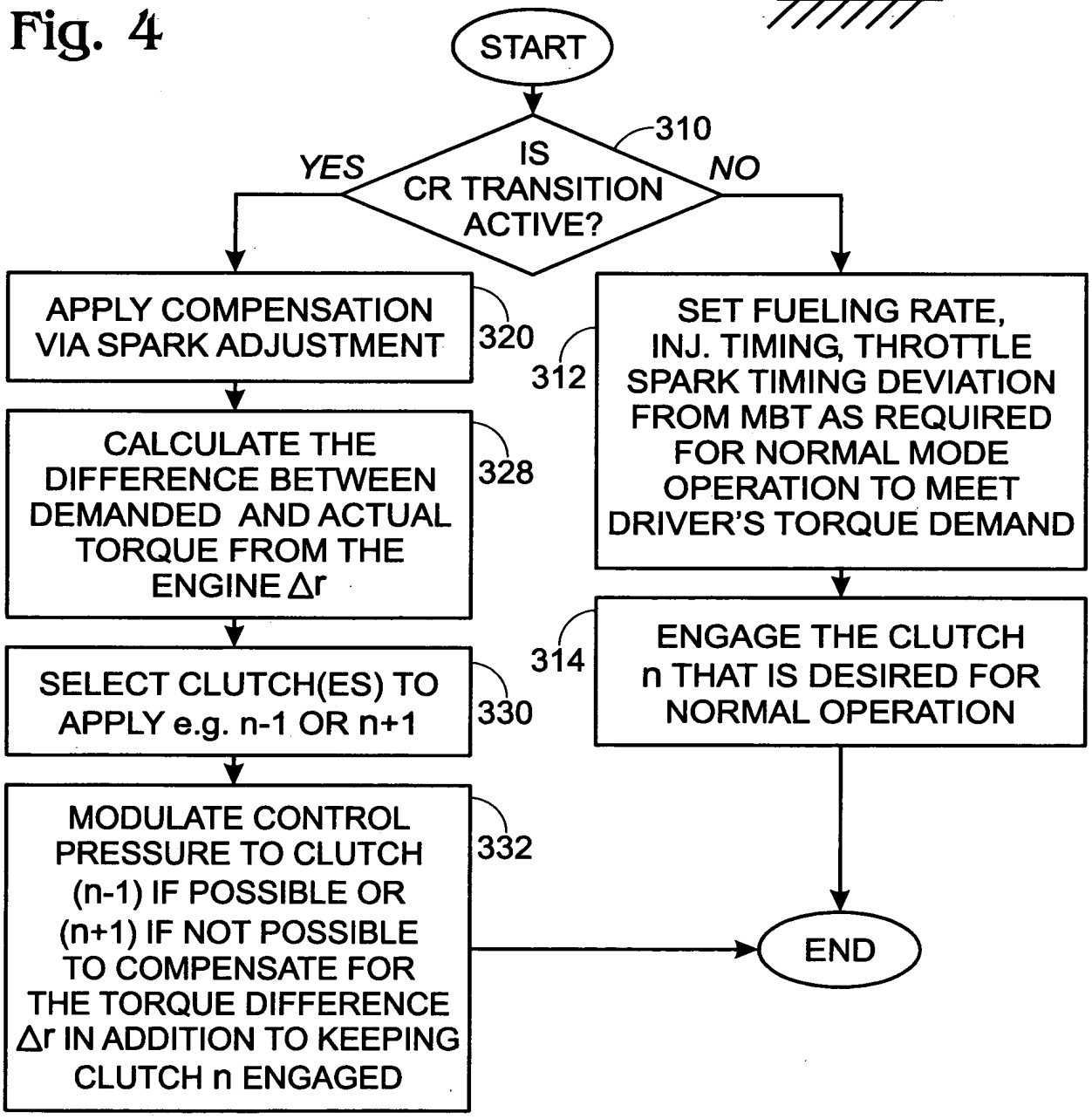

24
CLUTCH n-1
r_{n-1}
PATH n-1
ENGINE
10
CLUTCH n
r_n
PATH n
Δr
CLUTCH n+1
r_{n+1}
PATH n+1
210
DIFFERENTIAL
205
207
210
212

Fig. 4


START
310
IS CR TRANSITION ACTIVE?
YES
NO
APPLY COMPENSATION VIA SPARK ADJUSTMENT
320
CALCULATE THE DIFFERENCE BETWEEN DEMANDED AND ACTUAL TORQUE FROM THE ENGINE Δr
328
SELECT CLUTCH(ES) TO APPLY e.g. n-1 OR n+1
330
MODULATE CONTROL PRESSURE TO CLUTCH (n-1) IF POSSIBLE OR (n+1) IF NOT POSSIBLE TO COMPENSATE FOR THE TORQUE DIFFERENCE Δr IN ADDITION TO KEEPING CLUTCH n ENGAGED
332
312
SET FUELING RATE, INJ. TIMING, THROTTLE SPARK TIMING DEVIATION FROM MBT AS REQUIRED FOR NORMAL MODE OPERATION TO MEET DRIVER'S TORQUE DEMAND
314
ENGAGE THE CLUTCH n THAT IS DESIRED FOR NORMAL OPERATION
END